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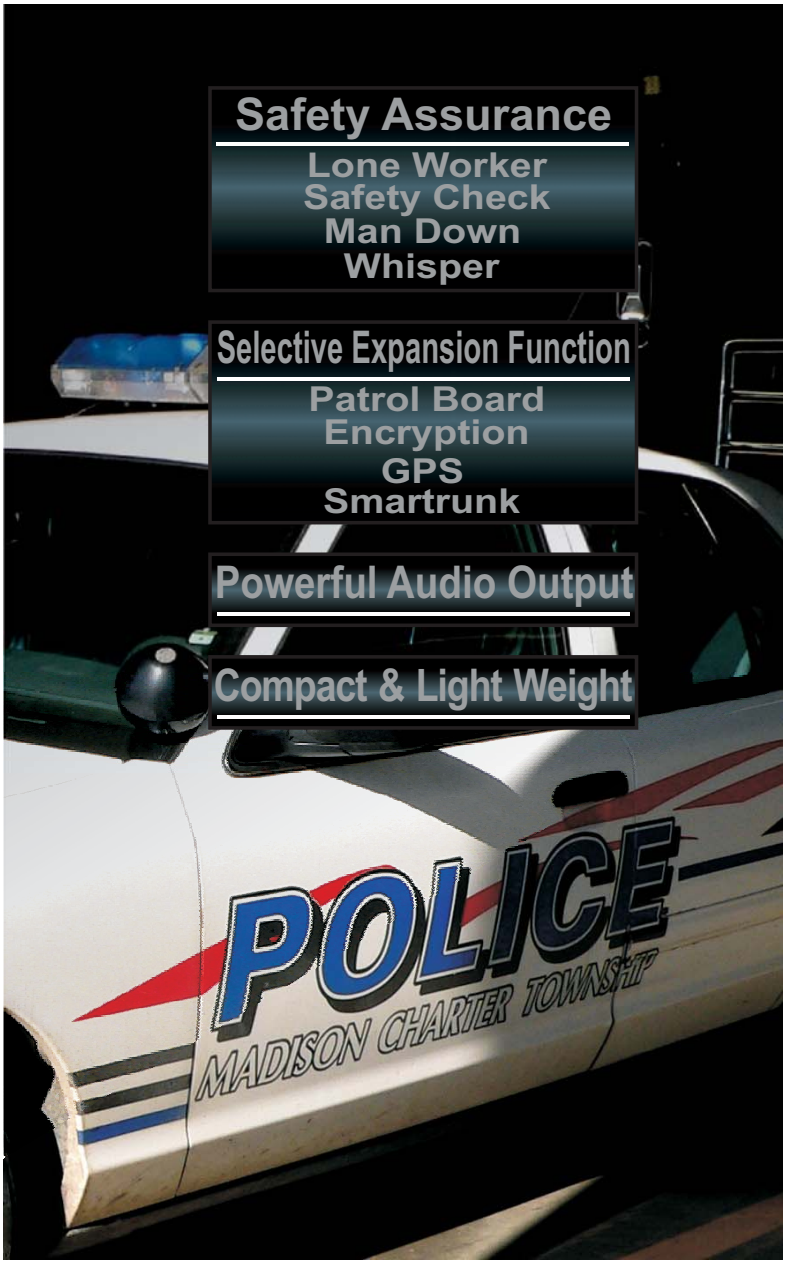
HYT
AMERICA, INC.

Professional
Two-way Radio

TC-780



www.hytamerica.com

TC-780

Professional Two-way Radio

HYT TC-780 is a medium-to-high tier portable radio developed with state-of-the-art technology and provides multiple functions. With LCD display, numeric keypad, full frequency band, 256 channels, the radio satisfies the user's group dispatch and delivers powerful functions, stable performance, and high performance-to-price ratio.

Applications

- Public Safety
- Government Entities
- Logistics
- Property Management
- Hotel
- Port

Super Features

Safety Assurance

Safety and security are critical factors for modern organizations. The TC-780's Lone Worker, Safety Check, and Man Down features are designed to assure your safety in case of emergencies or accidents.

Lone Worker

The Lone Worker feature provides added security and safety for individuals who work remotely from their team. Should a user not respond to a regular warning tone, a defined emergency procedure is activated.

Safety Check

Allows the control center or other authorized radios to check your radio status. Should the user not respond to a safety check signal, then a defined emergency procedure is activated.

Man Down

Providing even greater safety for employees in hazardous environments, the TC-780 has a Man Down feature. In case you are suffering an attack or other accidents, and the radio falls over for a predetermined time period, this feature automatically summons assistance.

You need to place the radio vertically, to exit the emergency mode.

Whisper

The Whisper feature means that even the quietest message can be transmitted and understood.

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Super Features

Selective Expansion Function
Expansion ports are reserved for second development: Patrol Record, Encryption, SmarTrunk™ trunking system and GPS remote speaker microphone.

Patrol Record (optional) *
Supporting the Patrol Record feature, a patrol system is composed of TC-780 patrol radio, TX-90 patrol transmitter, patrol center, patrol management software and data transmission cable, to send real-time or non-real-time information.

Digital Encryption (optional) *
With digital encryption, private communication is available for TC-780.

SmarTrunk™ Trunking System (optional) *
The SmarTrunk™ option board can work hand-in-hand with a controller to realize all functions of SmarTrunk™ trunking system.

Powerful Audio Output
HYT's voice compandor audio enhancement and a powerful 1.5W speaker (with a diameter of 40mm) ensure superb clear, crisp sound even in noisy environments.

Compact & Light Weight
Compact design makes this TC-780 series radio easy to hold and carry---and it's so lightweight you can take it virtually anywhere.

Main Features

Wide Band Coverage
Allows users the flexibility to select their frequency for use in their respective work environments.

Build-in Scrambler
The Scrambler feature provides enhanced security for your important public safety and private security communications.

HYT HDC2400™ and HDC1200 Signaling
The HDC2400™ signaling is exclusive to HYT, and contributes to the system to achieve features including ANI (Automatic Number Identification), Call Timer, Record, Record Inquiry, Individual Call, Group Call, Broadcast, Status Inquiry, Safety Check, Stun/Kill/Revive, etc.
The HDC1200 Signalling is compatible with MDC1200, and allows functions including PTT ID Encode & Decode, Emergency Encode, Radio Check Encode & Decode, Kill & Revive Decode, Individual Call, Group Call, Broadcast, Status Message Encode, and Fixed Message Encode.

Firmware Upgradeable
Build-in Flash MCU allows the radio firmware to be upgraded to include the latest features.

Power on Self-Test
The radio itself checks radio status automatically when powered on, and emits corresponding alert if an error occurs (e.g. CPU error or EEPROM error), allowing the user to early detect unit faults.

Soft Power Off
After the radio is powered down, it allows some circuits to continue working as you set, and won't be turned off until features including alarm are performed.

Field Programming
Menu operation and full keypad allow you to easily customize parameters and channel settings.

LCD Battery Gauge
Indicates battery strength levels for more effective power management.

2-Tone Encode & Decode
The 2-Tone encode and decode functions are assignable at a per channel basis.

High Transmit Power
5W VHF/UHF transmit power accommodates wide communication coverage.

Embedded Message & Serial No.
The radio's memory can store messages including service and programming records, for remarkable ease of maintenance. The feature also makes a unit identifiable by Serial Number.

Emergency
Press the Emergency key to emit emergency alarm, or send ENI (Emergency Number Identity) / background tone to a pre-defined person or the dispatch center (selectable via programming software).

Vibration
TC-780 supports a vibration feature. The vibrate indication helps in working conditions where quiet operation is required.

*Functions marked with an asterisk are available to the enhanced version only.

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Mechanical Features

- **Reliability and Durability**
  The radio uses components of famous brands, and meets strict tests.
- **Ergonomic Design**
- **Laser-etched Nameplate**

Other Features

- **DTMF Encode & Decode**
- **CTCSS/CDCSS**
- **Voice Compandor**
- **MSK Wireless Clone**
- **PC Tuning**
- **Dual Priority Scan**
- **Battery Save**
- **Low Battery Alert**
- **Kill/Revive**
- **Programmable Function Keys**
- **Talk Around**
- **Channel Alias**
- **Programmable Alert Tone**
- **Battery Gauge**
- **Auto Acknowledgement**
- **VOX**
- **Power-on Password and Data Password**
- **RSSI (Received Signal Strength Indicator)**
- **Embedded Message & Serial No.**

TC-780

Professional Two-way Radio

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ACCESSORIES

Standard Accessories

Antenna

Li-Ion Battery (1700mAh)
BL1703

MCU Rapid-Rate
Charger CH10L07

Switching Power(100-240V) PS1009
(for use with different power cords in
different countries and areas)

Belt clip
BC08

Leather Strap
RO04

Optional Accessories

Earbud with in-Line PTT
ESN05

Earpiece with on-MIC PTT
ESN06

Earpiece with on-MIC PTT &
Transparent Acoustic Tube
EAN04

D-Earset with in-Line
Microphone & PTT
EHN07

D-Earset with Boom
Microphone & in-Line PTT
EHN08

2-Wire Surveillance Earpiece
with Transparent Acoustic
Tube (Black/beige)
EAN05 / EAN07

3-Wire Surveillance Earpiece
with Transparent Acoustic
Tube (Black/beige)
EAN06/ EAN02

2-Wire Earpiece with
Wireless Receiver and
Neck Loop (beige)
EWN03

Ear Canal Bone-Induction
Earpiece with in-Line PTT
EBN01

Light-Weight, Throat-Vibrating
Earpiece with in-Line PTT
ELN02

Heavy Duty,Noise-
Cancelling Headset
ECN08

Behind-the-Head,
Noise-Cancelling Headset
ECN09

Remote Speaker
Microphone
SM08N1

Noise-Canceling Remote
Speaker Microphone
SM13N4

Receive-only Earpiece
(for use with remote
speaker microphone)
ESS07

Receive-only Earpiece with
Transparent Acoustic Tube
(for use with remote speaker
microphone)
ESS08

Six-unit switching
power (Japan)
PS7001

MCU Multi-unit Charger
(for Li-Ion/Ni-MH batteries)
MCA03

Ni-MH Battery (1800mAh)
BH1801
Li-Ion Battery (2100mAh)
BL2102

Chest Pack
LCBN13

Belt clip
BC08

Leather Carrying Case
(swivel) (for keypad and
display models)
LCBY23

Antenna

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Applicable Military Standards 810C/D/E/F

Applicable MIL-STD	810C Methods	810C Procedures	810D Methods	810D Procedures	810E Methods	810E Procedures	810F Methods	810F Procedures
Low Pressure	500.1	1	500.2	1,2	500.3	1,2	500.4	1
High Temperature	501.1	1,2	501.2	1,2	501.3	1,2	501.4	1,2
Low Temperature	502.1	1	502.2	1,2	502.3	1,2	502.4	1,2
Temp. Shock	503.1	1	503.2	1	503.3	1	503.4	1
Solar Radiation	505.1	1	505.2	1	505.3	1	505.4	1,2
Rain	506.1	2	506.2	2	506.3	1,2	506.4	1,2
Humidity	507.1	2	507.2	2,3	507.3	2,3	507.4	1
Salt Fog	509.1	1	509.2	1	509.3	1	509.4	1
Dust	510.1	1	510.2	1	510.3	1	510.4	1
Vibration	514.2	8,10	514.3	1	514.4	1	514.5	1
Shock	516.2	1,2,5	516.3	1,4	516.4	1,4	516.5	1,4

General

Frequency Range	VHF: 136-174 MHZ UHF: 350-390 / 400-470 / 450-520 MHz
Channel Capacity	256
Channel Spacing	25 / 20 / 12.5 KHz
Operating Voltage	7.4 V
Battery	1700mAh Li-Ion Battery
Battery Life (5-5-90 Duty Cycle)1700mAh Li-Ion Battery	12 Hours
Frequency Stability	± 2.5ppm
Operating Temperature	-30°C~+60ºC
Antenna Impedance	50Ω
Dimensions (HXWXD)(with battery, without antenna)	4.88 x 2.13 x 1.38 inch
Weight (with antenna & battery)	11.99 oz

Transmitter

RF Power Output	5W/2W/1W(VHF/UHF)
Modulation	16K Φ F3E/11K Φ F3E
Spurious and Harmonics	-36dBm<1GHz -30dBm>1GHz
FM Noise	≥ 45/40dB
Audio Distortion	≤ 5%

Receiver

Sensitivity	0.25/0/35 μ V
Selectivity	≥ 70/60dB
Intermodulation	65dB
Spurious Response Rejection	70dB
S/N	≥ 45/40dB
Rated Audio Power Output	800mW
Rated Audio Distortion	≤ 5%

All Specifications are tested according to TIA/EIA-603, and subject to change without notice due to continuous development.

ISO9001:2000 *Certificate* NO:**FM** 61540

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Ver. **NA-TC780-A**

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